

MARKED-UP COPY OF AMENDED SPECIFICATION PARAGRAPHS:

Amend page 5, line 14 - page 10, line 4 as follows:

The present invention ~~has been attempted in view of~~
~~addresses~~ such a situation, and ~~is intended to makes~~ possible
transmission of many messages without seriously affecting
~~essential~~ video information which ~~is essentially has to be~~
transmitted.

According to an aspect of the invention, an ~~The~~
information providing apparatus ~~stated in Claim 1 is wherein it~~
~~is provided with~~ includes first generating means for generating
first information including messages; second generating means
for generating second information including indexes to the
messages; and synthesizing means for synthesizing the first and
second information as EPG information.

According to another aspect of the invention, an ~~The~~
information providing method ~~stated in Claim 5 is wherein it is~~
~~provided with~~ includes a first generating step to generate first
information including messages; a second generating step to
generate second information including indexes to the messages;
and a synthesizing step to synthesize the first and second
information as EPG information.

According to a further aspect of the invention, a ~~The~~
~~transmission medium is provided for storing stated in Claim 6 is~~
~~wherein it transmits a program that includes~~ provided with: a
first generating step to generate first information including
messages; a second generating step to generate second
information including indexes to the messages; and a
synthesizing step to synthesize the first and second information
as EPG information.

According to yet another aspect of the invention, an
~~The information receiving apparatus stated in Claim 7 is wherein~~
~~it is provided with:~~ includes receiving means for receiving

signals which have been transmitted; extracting means for extracting messages from the signals received by the receiving means; determining means for determining the types of the messages extracted by said extracting means; and display control means responsive to the result of determination by the determining means for controlling the on-screen displaying of the messages in relation to the video information.

According to a still further aspect of the invention,
~~an The information receiving method stated in Claim 8 is wherein~~
~~it is provided with:~~ includes a receiving step to receive signals which have been transmitted; an extracting step to extract messages from the signals received at said receiving step; a determining step to determine the types of the messages extracted at the extracting step; and a display control step responsive to the result of determination at the determining step to control the on-screen displaying of the messages in relation to the video information.

In accordance with an additional aspect of the invention, ~~a The transmission medium is provided for storing~~
~~stated in Claim 9 is wherein it transmits a program that~~
~~includes provided with:~~ a receiving step to receive signals
which have been transmitted; an extracting step to extract messages from the signals received at said ~~the~~ receiving step; a determining step to determine the types of the messages extracted at the extracting step; and a display control step responsive to the result of determination at the determining step to control the on-screen displaying of the messages in relation to the video information.

In accordance with yet an additional aspect of the invention, ~~an The information providing system stated in Claim~~
~~10 is wherein: the receives,~~ with an information receiving
apparatus, EPG information superimposed on video information

~~from an information providing apparatus. is provided with The~~
information providing apparatus includes first generating means
for generating first information including messages; second
generating means for generating second information including
indexes to the messages; and synthesizing means for synthesizing
the first and second information as EPG information; ~~and the.~~
The information receiving apparatus includes ~~is provided with.~~
receiving means for receiving signals transmitted in which the
EPG information is superimposed on video information; extracting
means for extracting messages from the signals received by the
receiving means; and display control means for controlling the
on-screen displaying of the messages extracted by the extracting
means in relation to the video information.

According to still another aspect of the invention, an
~~The information providing method stated in Claim 11 is wherein:~~
~~the receives,~~ with an information receiving apparatus, EPG
information provided superimposed on video information from an
information providing apparatus. is provided with ~~At the~~
information providing apparatus, the method includes a first
generating step to generate first information including
messages; a second generating step to generate second
information including indexes to the messages; and a
synthesizing step to synthesize the first and second information
as EPG information. ~~and~~ At the information receiving
apparatus, is provided with: the method includes a receiving
step to receive signals which have been transmitted; an
extracting step to extract messages from the signals received at
the receiving step; and a display control step to control the
on-screen displaying of the messages extracted at the extracting
step in relation to the video information.

According to yet a further aspect of the invention, a
~~The transmission medium for storing stated in Claim 12 is~~

~~wherein the programs~~ for use in an information providing system receives, with an information receiving apparatus, EPG information provided superimposed on video information from an ~~the information providing apparatus.~~ is provided with A program for the information providing apparatus includes a first generating step to generate first information including messages; a second generating step to generate second information including indexes to the messages; and a synthesizing step to synthesize the first and second information as said EPG information. ~~and the A program for the information receiving apparatus includes is provided with:~~ a receiving step to receive signals which have been transmitted; an extracting step to extract messages from the signals received at the receiving step; and a display control step to control the on-screen displaying of the messages extracted at the extracting step in relation to the video information.

In the above-described information providing apparatus, ~~stated in Claim 1, the information providing method, stated in Claim 5 and the transmission medium, stated in Claim 5, the first information including the messages and the second information including the indexes to the messages are synthesized into the EPG information.~~

In the information receiving apparatus, ~~stated in Claim 7, the information receiving method, stated in Claim 8 and the transmission medium described above, stated in Claim 9, the messages are extracted from the transmitted signals, and the type of the extracted messages is determined. And according to the result of determination, the on-screen displaying of the messages in relation to the video information is controlled.~~

In the above-described information providing system, ~~stated in Claim 10, the information providing method, stated in Claim 11 and the transmission medium, stated in Claim 12, the~~

first information and the second information are synthesized into the EPG information. The messages are extracted from the received signals, and displayed on screen in relation to the video information.

Amend page 12, line 3 - page 13, line 19 as follows:

~~The~~ An information providing apparatus ~~stated in Claim 1 is wherein it is~~ provided with the first generating means (for example a DMT generating section 33-9 in FIG. 3) for generating the first information including the messages; the second generating means (for example a rDMT generating section 33-8 in FIG. 3) for generating the second information including indexes to the messages; and the synthesizing means (for example a TS packeting section 35 in FIG. 2) for synthesizing the first information and the second information as EPG information.

~~An~~ The information receiving apparatus ~~stated in claim 7 is wherein it is~~ provided with the receiving means (for example a front end section 51 in FIG. 4) for receiving signals which have been transmitted; the extracting means (for example a demultiplexer 57 in FIG. 4) for extracting the messages from the signals received by the receiving means; the determining means (for example steps S1 to S4 in FIG. 15) for determining the types of the messages extracted by the extracting means; and the display control means (for example steps S6 to S9 in FIG. 15) responsive to the result of determination by the determining means to control the on-screen displaying of the messages in relation to the video information in the messages.

~~In an~~ The information providing system, ~~stated in claim 10 is wherein the~~ information providing apparatus is provided with the first generating means (for example the DMT generating section 33-9 in FIG. 3) for generating the first information including the messages; the second generating means (for example

the rEMT generating section 33-8 in FIG. 3) for generating the second information including the indexes to the messages; and the synthesizing means (for example the TS packeting section 35 in FIG. 2) for synthesizing the first and second information as EPG information; and the information receiving apparatus is provided with the receiving means (for example the front end section 51 in FIG. 4) for receiving signals transmitted superimposed on video signals; the extracting means (for example the demultiplexer 57 in FIG. 4) for extracting the messages from the signals received by the receiving means; and the display control means (for example the EPG processor 59 in FIG. 4) for controlling the displaying of the messages extracted by the extracting means in relation to the video information.

Amend page 44, line 9 - page 45, line 7 as follows:

As hitherto described, the information providing apparatus, ~~stated in Claim 1, the information providing method, stated in Claim 5 and the transmission medium, stated in Claim 6,~~ as they are disposed to synthesize EPG information from the first information containing messages and the second information containing indexes to messages, ~~they~~ make it possible to transmit many messages while suppressing the effect on video information, which essentially has to be transmitted.

The above-described information receiving apparatus, ~~stated in Claim 7, the information receiving method, stated in Claim 8 and the transmission medium, stated in Claim 9,~~ as they are disposed to display messages on screen over video information according to the result of determination of the message type, ~~they~~ make it possible to prevent video information, on which messages are superimposed, from being recorded on a recording medium.

The above-described information providing system, ~~stated in Claim 10, the information providing method, stated in Claim 11 and the transmission medium, stated in Claim 12,~~ as they are disposed to synthesize EPG information from the first information containing messages and the second information containing indexes to messages, ~~to~~ extract messages from received signals and to display the message on screen over video information, ~~they~~ make it possible to transmit and display many messages without seriously affecting essential video information.

REMARKS

Reconsideration and allowance of this application is respectfully requested. Claims 1-12 have been cancelled. Claims 13-47 have been added and are submitted for the Examiner's consideration. Support for new claims 13-47 is found in FIGS. 1-6 and 13-15 and on pages 11-26 and 37-45 of the specification.

The specification has been amended to correct minor errors. No new matter has been added by these amendments. A clean copy of a substitute specification is submitted with the Amendment.

In the Office Action, claims 1-12 were rejected under 35 U.S.C. § 102(e) as being anticipated by LaJoie (U.S. Patent No. 5,850,218). Claims 1-12 have been cancelled, and claims 13-47 are submitted in place thereof. It is submitted that claims 13-47 are patentably distinguishable over LaJoie.

The LaJoie patent shows, in Fig. 5, a channel table 101, a service table 111 and parameter tables 105, 107, 109, 127, 129 and 131. A service type is associated with a channel number via a pointer from a location on the channel table to a location on the service table. The source of the service, as well as other information, is associated with the service through another pointer from a location on the service table to a location on one of the parameter tables. Thus, the tables cross-reference the channel numbers to the type, source and description of programs and services provided by a cable system. (See column 5, lines 23-58; and column 16, line 10 to column 17, line 10).

LaJoie is not concerned with data tables comprised of one or more messages or with data tables that include an index to such messages, and LaJoie is not concerned with transmitting these data tables over separate bit streams. The LaJoie patent

therefore does not suggest generating a first data table comprised of at least one *message*, forming a first bit stream that includes the *first data table*, generating at least one further data table that includes at least one index which identifies a location of a *message* within the first data table (of the first bit stream), forming at least one *second bit stream* comprised of the *further data table*, and transmitting the first bit stream and second bit stream, all as called for in claims 13, 25, and 37.

Claims 14-24 depend from claim 13 and claims 26-36 depend from claim 25 and are distinguishable over LaJoie at least for the same reasons.

Similarly, LaJoie also does not suggest forming a first data table comprised of at least one *message* from a first bit stream, forming at least one further data table that includes at least one index which identifies a location of a *message* within a first data table within the first bit stream from the second bit stream, locating and reading a *message* in a first data table using an index stored in a further data table, and *providing notification* of a *message*, all as set out in claims 38, 41 and 44.

Claims 39-40 depend from claim 38 and claims 42-43 depend from claim 41 and are likewise distinguishable over the reference at least for the same reasons.

Claim 45 includes limitations similar to those set out in claims 13 and 38, claim 46 includes limitations similar to those set out in claims 25 and 41, and claim 47 includes limitations similar to those set out in claims 37 and 44. Claims 45-47 are distinguishable over LaJoie at least for the same reasons.

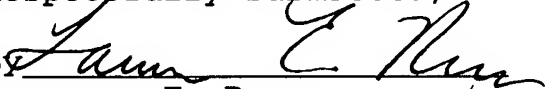
In view of the foregoing remarks and the amendments herein, it is submitted that the Examiner's rejection of the

claims under 35 U.S.C. § 102 is overcome. It is therefore submitted that this case is in condition for allowance, and such action is respectfully requested. If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that the Examiner telephone applicant's attorney at (908) 654-5000 in order to overcome any additional objections which the Examiner might have.

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

Dated: July 15, 2002

Respectfully submitted,

BY 

Lawrence E. Russ

Registration No.: 35,342

LERNER, DAVID, LITTENBERG,

KRUMHOLZ & MENTLIK, LLP

600 South Avenue West

Westfield, New Jersey 07090

(908) 654-5000

Attorneys for Applicant